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User Guide

Datgel

Fence and Map Tool gINT Reports

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About the Product

The Datgel Fence and Map Tool gINT Reports is a collection of gINT reports and library objects which provide an extensive range of data presentation options, along with dynamically generated scales bars and legends/keys. The Tool is based on two databases structures: DGD and AGS RTA.

There are 5 major components of the Tool:

1. Fence reports, with numerous output time user defined data presentation options
2. Dynamic fence post legend
3. Map reports
4. Dynamic map key
5. Dynamic scale bars for both fence and map reports

You need to complete the installation procedure (see Installation on *page 1* before you can use the Fence and Map Tool.

Support

12 months support and maintenance is included with the license purchase. For technical support please email support@datgel.com or call +61 2 8202 8600.

System Requirements

gINT

The product requires gINT 8.2.004 or higher to run. The tool comprises of Fence and Site Map reports that require gINT Professional.

Hardware and Operating System

Same system requirements as gINT 8.2, see: http://www.gintsoftware.com/products_requirements.html.

Conventions and typography used in this guide

Note: Tips and additional Information to help you.

>	Used to indicate a series of menu commands. e.g. Select **File > Open**.
|	Used to indicate a gINT Application Group, Application, Table Group or Table , e.g. **DATA DESIGN | Project Database**
Bold Text	Items you must select, command buttons, or items in a list. e.g. Navigate to **UTILITIES | Convert Projects** (4th tab).
Italics Emphasis	Use to emphasize the importance of a point such as parameters. e.g. Data Entry – Check *Omit Must Save prompt when save is required*
CAPITALS	Names of keys on the keyboard. for example, SHIFT, CTRL, or ALT.
KEY+KEY	Key combinations, for example CTRL+P, or ALT+F4.

`Code Snippet`	Indicates a code snippet within a paragraph
`Code sample`	Indicates a sample program codes inserted in user guide e.g. `public override string ToString ()`
`File name or path`	Used for formatting file name and paths e.g. `di_lib.glb` or `V:\10 gINT\Datgel Install Files\`
Table_Name	Database table name, e.g. POINT_TABLE.
Field_Name	Database field name; e.g. PointID
Command line	Command line, presented exactly as it must be entered e.g. **cdir**

Field Colours

Each of the fields in the project tables have been coloured to improve the data entry process as indicated below in Table 1.

Table 1 – Field Colours

Field Colour		Field Name and Explanation
	Yellow	gINT Key Field – mandatory data entry
	Pastel Purple	AGS Data – data associated with the AGS Data Interchange Format
	Pastel Green	Calculated Field – data is written to this field by Datgel's code
	Pastel Beige	Data Entry Field – data should be entered into this field, or data in this field influences the calculation
	Pastel Red	Legacy Data Field – historic data entered here, is typically from an old database
	Pastel Blue	Output Option – used to control how data displays on a report
	Pastel Orange	Remark or Metadata Field – additional data associated with the primary information
	Grey	Read-only

1 Installation

1.1 Installation Overview

There are two parts to the installation process:

- Choose database type
- Merge gINT library objects

1.2 Package Contents

Your software purchase may have come with the following contents:

- Application CD which normally has the following folders:
  `\gINT Files`
  `\Documentation`

1.3 Before Installation

A few basic preparations can help ensure an effortless installation.

- Make sure that the computer where you plan to install the program meets the minimum hardware and software requirements.

Note: If you're in one of the following situations, then your gINT files have been set up already and you may proceed to Section 2.

In the trial version of the Fence and Map Tool, the library will be locked and you cannot merge any gINT Library Objects into your Library file, or make changes to this Library file. In this case, you have to use the locked library as-is.

Steps1.4 and 1.5 have already been completed by Datgel's developers, yourself or a colleague.

If you don't have existing gINT files then you may wish to just use the example Fence and Map Tool gINT Files provided on the DVD.

1.4 Choose and Implement a Project Database Structure

If you are already using a DGD or an AGS RTA type database then you do not need to modify your project database structure, and should use the library corresponding to your current database structure.

If you are *not* already using a DGD or an AGS RTA type database and associated library then you will have been supplied a standardised version of one of them when you purchased the Datgel Fence and Map Tool. It is advised that you use the supplied standard database structure to create your future project files, if you do not then the Datgel Fence and Map Tool will not work correctly.

1.5 Merge gINT Library Objects

If you have purchased the Fence and Map Tool gINT Reports, then you have full access to the library objects, and you may proceed with the following steps to merge the gINT Library components into your Library file.

1. Make a backup copy of your existing library file. By default this is located at:

   `C:\Program Files\gINT\libraries\`

IMPORTANT: If you are *not* already using a DGD or an AGS RTA type database and associated library then you will have been supplied a standardised version of one of them when you purchased the Datgel Fence and Map Tool.

When you proceed to step 2 you must select the standardised DGD or AGS RTA type database and associated library. If you do not, the Datgel Fence and Map tool will not work correctly.

2. Start gINT and open the library and project file you wish to use with Datgel Fence and Map Tool gINT Reports.

   The opened project and library files are displayed at the top of the gINT Window.

UTILITIES - Lib Merge/Copy: c:\gint lib n project files\client\client lib.glb
File Help
INPUT OUTPUT DATA DESIGN REPORT DESIGN SYMBOL DESIGN DRAWINGS UTILITIES
Repair/Compact Databases Lib Merge/Copy Print Object Lists Convert Projects Extract From ZIP

Figure 1 – Current gINT Library File Location

3. Select **UTILITIES | Lib Merge/Copy**

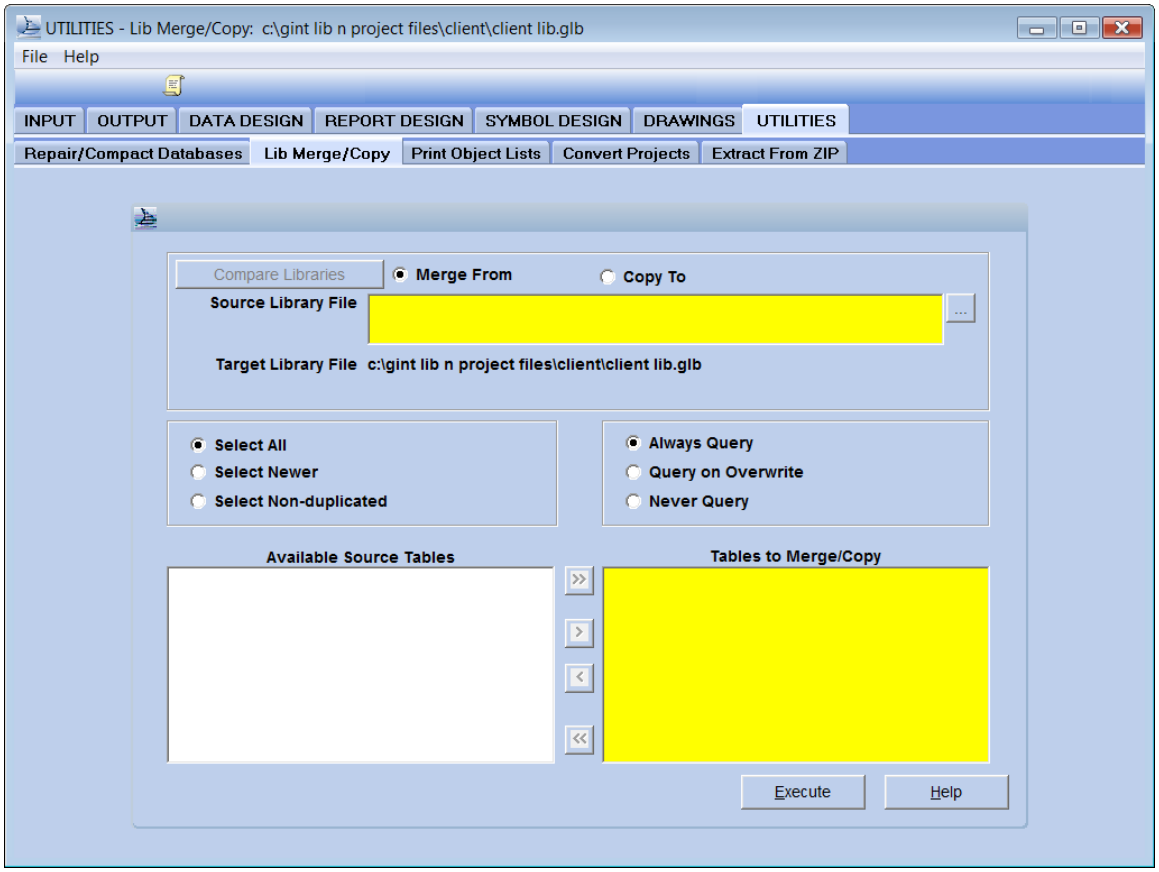


Figure 2 – Library Merge/Copy

4. Check the bullet that reads **Merge From**.
5. In the *Source Library File* pane, browse the installation CD for file `Datgel Fence and Map Tool lib #.##.glb` where `#.##` is the version number.
6. Check the bullet that reads **Select All**.
7. Check the bullet that reads **Query On Overwrite.**

8. Click » button to move all tables from the *Available Source Tables* pane on the left to the *Tables to Merge/Copy* pane on the right side.

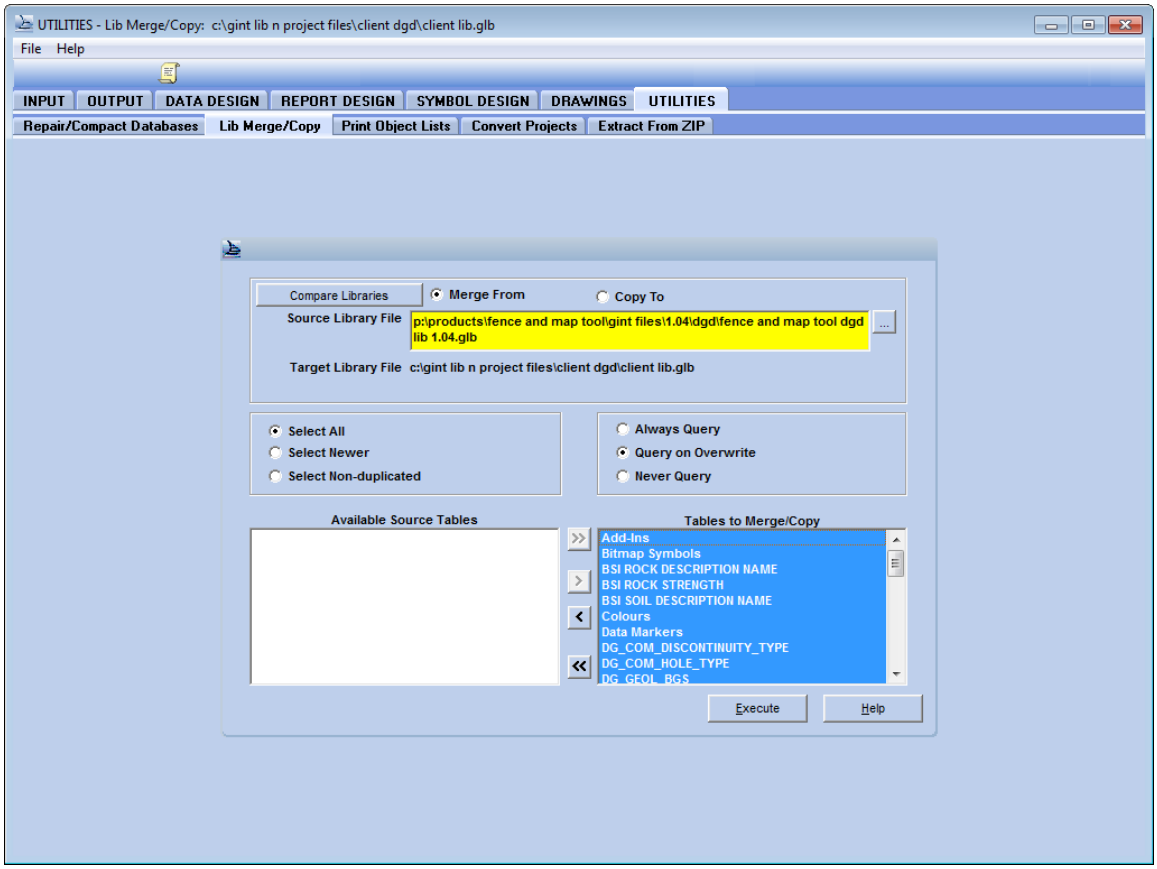
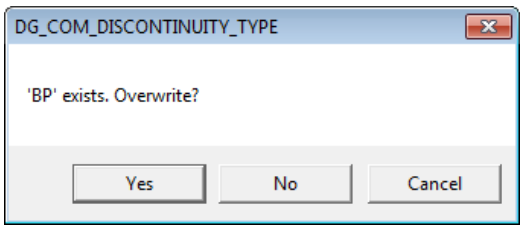


Figure 3 – Merge gINT Library Objects

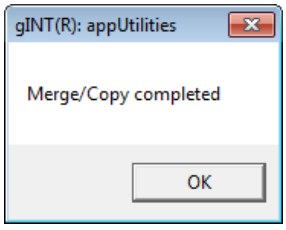
9. Click **Execute**. This process may take several minutes to complete.

   Take care to read the overwrite dialog and click **Yes** if you wish to overwrite the file, ELSE click **No**.



   This will merge in the reports, lookup lists, and other library objects which are related to the Tool.

10. Click **OK** to finish the merge.



2 Fences

2.1 Output

Fence Reports for range of page sizes and orientations have been set up, and they all operate the same way.

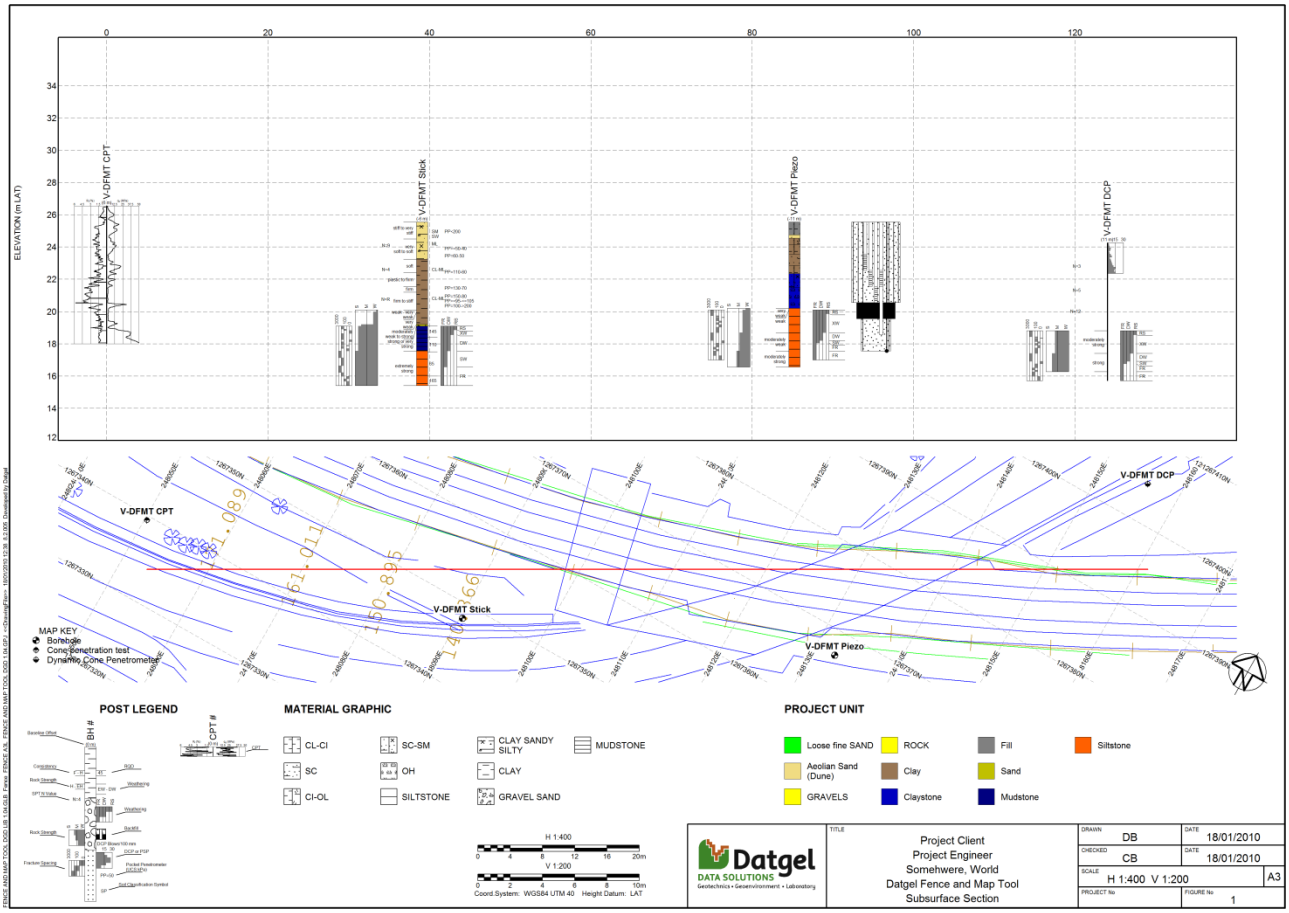


Figure 4 – Example Fence Report

2.2 User Report Variables

The user report variables can be used to define the details of the title block, the properties of the site map and how the entities are displayed on the Fence Report. A list of the user report variables and an explanation of how they are used is provided below in Table 2.

Table 2 – Fence User Report Variables

Name	Value	Notes
Title	Subsurface Section	Report title
Drawn		Enter person's initials/name
Date Drawn		Enter date
Checked		Enter person's initials/name
Date Checked		Enter date
Figure Number		Enter text. If left blank, it will default to "Figure 1".

Name	Value	Notes
Map Orientation	B, N	Sets the orientation of the site map. B = Baseline end points (default), N = North up
Override Sitemap Scale	1 (for 1:1000)	Overrides the scale of the site map by the selected value. By default the site map scale is the same as the fence x axis
Sitemap Lower Left Corner East		Overrides the coordinates of the lower left hand corner of the site map to the specified coordinates.
Sitemap Lower Left Corner North		
Sitemap Angle Relative North CCW		Rotates the site map counter-clockwise through the specified angle. If the coordinates of the lower left corner are specified, the rotation is centred on the lower left corner, otherwise it is centred on the centre of the site map entities
Stick	L	L = Legend/material graphic (default) S = Stick/line GM = Geology Map Code colour G1 = Geology Project Unit colour G2 = Geology Project Unit 2 colour OR = Origin colour C = CPT Soil Behaviour Type Colour (only if you're licensed for the CPT Tool) Combinations such as "L G2" will show both graphics
Stick CPT	S	
Stick DCP	S	
Coloured Graphic Log	Black, General Symbol, Origin	Sets the graphic log colour source, leave blank for default colour. Black: Override all colours to Black General Symbol: General Symbols will be used instead of the default Material Symbols Origin: Material Symbols set to origin colour
Qc Max 40 20 10 5		Override qc max scale, use 5, 10, 20, or 40 MPa.
Qc Rf Plot	t, c	t = plots qt; c will plot qc
Material Name	L# / R#	L entered in these fields will print the info on the left side of the fence posts and R will print the info on the right side; if data exists for that hole. Enter a number after L or R to offset the entity in that direction by that number. For example, L10 will print the entity on the left side offset by 10 mm. The Type of Core Column field determines which core photo column type to print on the fence posts. The available options are: VSC (Visual Sketch Column) CPC (Core Photo Column) DIC (Downhole Image Column) VSC & CPC (Visual Sketch Column and Core Photo Column. The Core Image Column field determines whether to print the core photo column on the left or right side of the fence posts. This field must be assigned a value when the type of Core Column field is assigned.
Graphic Name	L# / R#	
Origin Text	L# / R# (AGS RTA only)	
Formation Text	L# / R# (DGD only)	
Project Unit Text	L# / R#	
VS	L# / R#	
USCS Text	L# / R#	
N Value	L# / R#	
N Plot	L# / R#	
Pocket Penetrometer Text	L# / R#	
Sample Interval	L# / R#	
Sample Text	L# / R#	
DCP Plot	L# / R#	
Consistency Text	L# / R#	
Rock Strength Text	L# / R#	
Rock Strength Histogram Plot	L# / R#	
Rock Strength Bar Plot	L# / R#	
Fracture Spacing Histogram	L# / R#	

Name	Value	Notes
(Average Defect Spacing)		
Fracture Spacing Bar Chart	L# / R#	The Backfill field will print the piezometer column if data is found in the Piezometer table. Otherwise, it will print the well column from the Backfill/Well table. Well Area Width defines the width of the backfill column
Fracture Frequency Plot	L# / R#	
Weathering Text	L# / R#	
Weathering Histogram	L# / R#	
Weathering Bar Chart	L# / R#	
RQD Plot	L# / R#	
RQD Text	L# / R#	
Core Image Column Type	VSC, CPC, DIC, VSC & CPC	
Core Image Column Position	L# / R#	
Drilling Water Levels	L# / R#	
Piezo Levels	L# / R#	
Backfill	L# / R#	
Well Area Width (mm)	#	
In-situ Perm Text	L# / R#	
In-situ Perm K Plot	L# / R#	
In-situ Perm Lugeon Plot	L# / R#	
In-situ Density	L# / R#	
Soil Classification Symbol Text	L# / R#	
PSD Percent Fines Text	L# / R#	
PSD D50 Text	L# / R#	
PSD DMF Text	L# / R#	
ASS Display Liming Rate Net	Y	Note: Scr cannot be shown with SPOS. If both Scr and SOS are checked, then Scr will be shown.
ASS Scr	Y	
ASS SPOS	Y	
ASS Net Acidity	Y	
ASS Potential	Y	
ASS Left Offset	#	Distance in mm the ASS entities on the left / right side of the post will offset, default is 0.
ASS Right Offset	#	
ASS Criteria	Q,T	Entering Q will post the QASSIT Criteria data on the fence posts, and entering T will post the ASS Types on the fence posts.

Note: Origin is only available in the AGS RTA format files and Formation is only available in the DGD format files

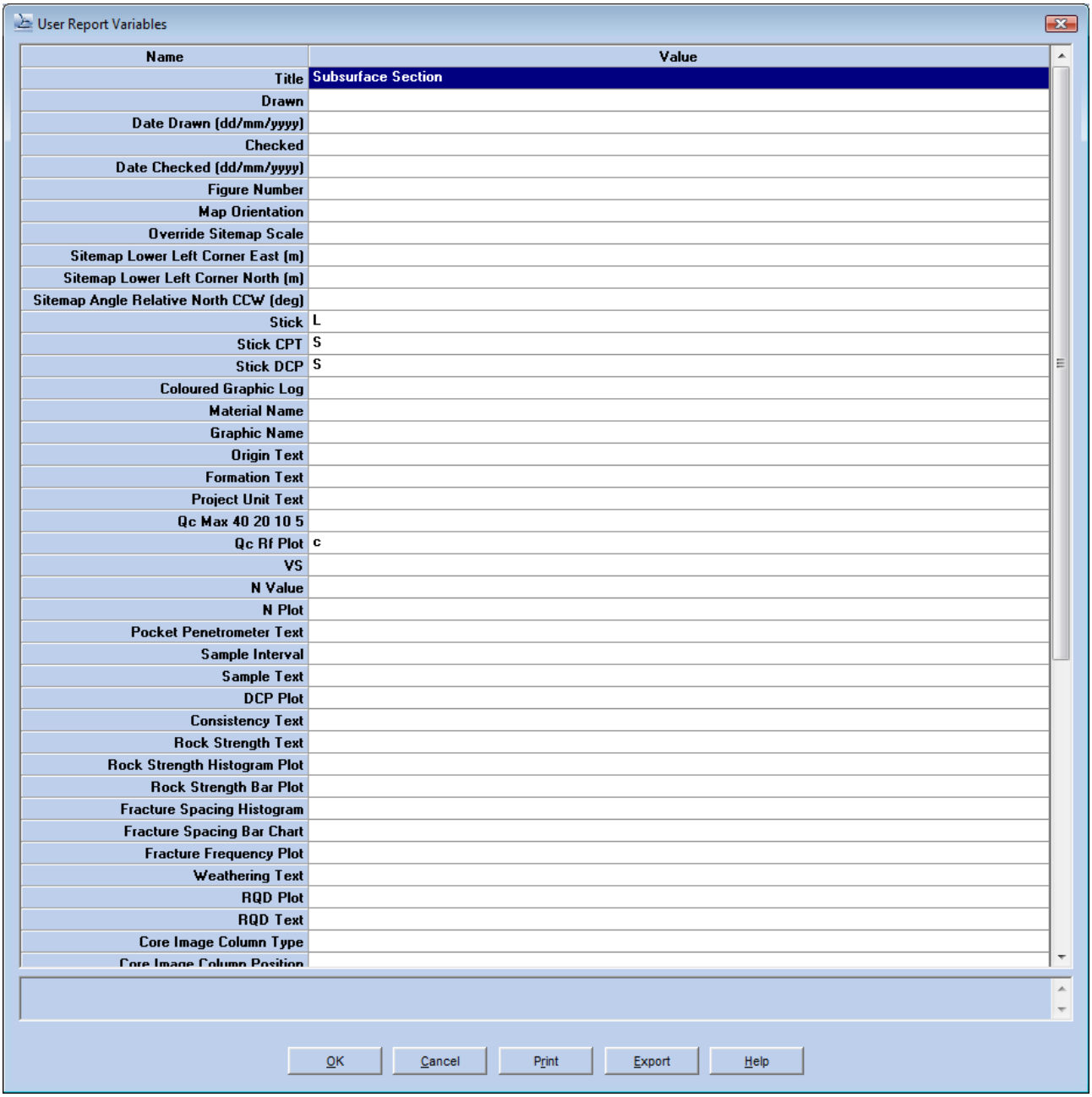


Figure 5 – Fence Report User Report Variables

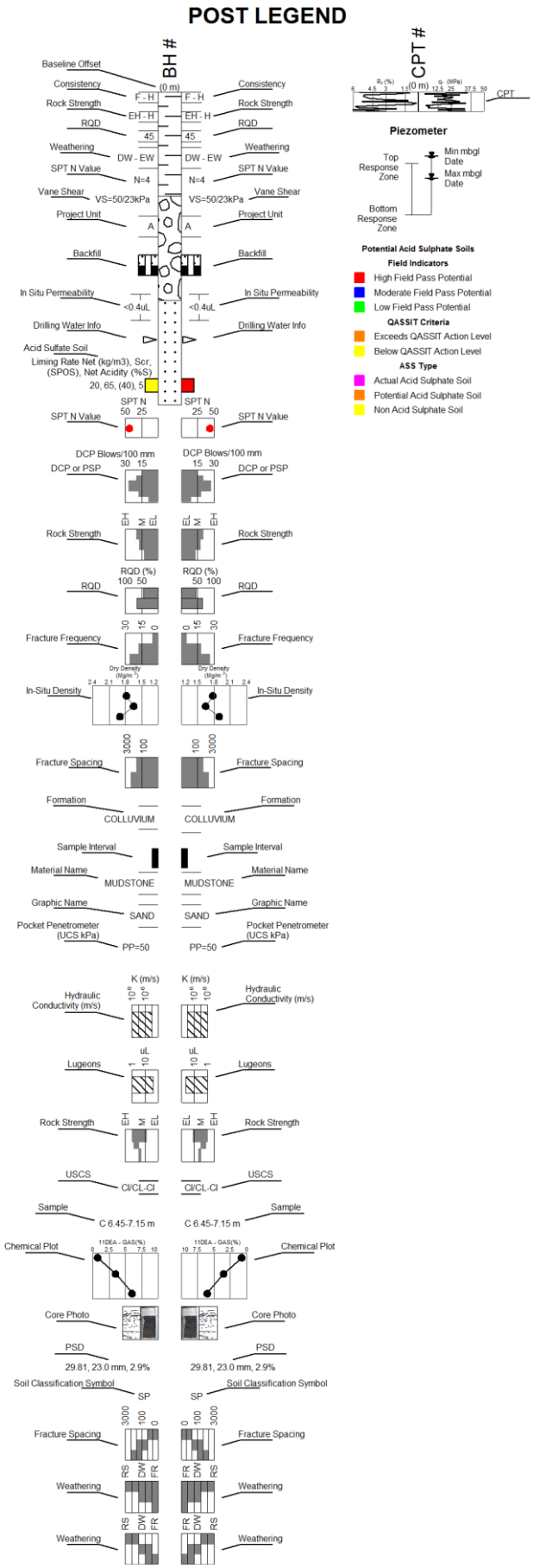


Figure 6 – Fence Post Legend Showing All Options

3 Site Map Reports

3.1 Input

If your project has a high density of PointIDs, then you may have a problem with PointID labels overplaying on Site Map reports. By default the PointID label will display at 12 o'clock, i.e. above the data marker. You may manually override the PointID label position by setting the analogue clock position in the project field POINT.Map_Post_Position.

For example:

- *6* represent 6 o'clock and displays below the data marker
- *10:30* represents the time of 10:30 and displays to the top left the data marker

3.2 Output

Site maps of a range of page sizes and orientations have been set up, and they all operate the same way.

Data markers have been defined for each Hole Type in the DG_COM_HOLE_TYPE library table. gINT creates the map key based on the hole types in the given project and the info in the DG_COM_HOLE_TYPE library table.

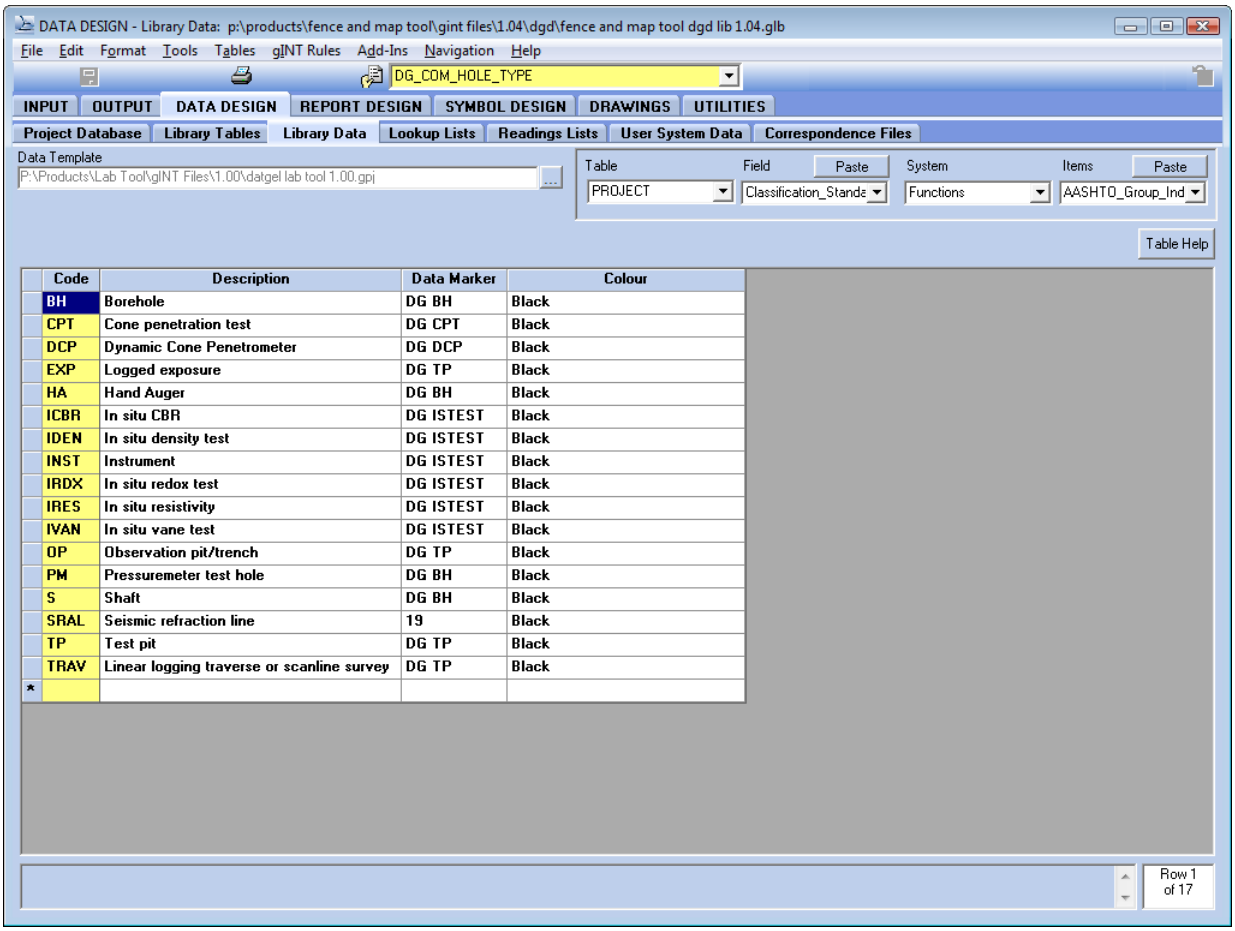

DATA DESIGN - Library Data: p:\products\fence and map tool\gint files\1.04\dgd\fence and map tool dgd lib 1.04.glb
File Edit Format Tools Tables gINT Rules Add-Ins Navigation Help
DG_COM_HOLE_TYPE
INPUT OUTPUT DATA DESIGN REPORT DESIGN SYMBOL DESIGN DRAWINGS UTILITIES
Project Database Library Tables Library Data Lookup Lists Readings Lists User System Data Correspondence Files
Data Template
P:\Products\Lab Tool\gINT Files\1.00\datgel lab tool 1.00.gpj
Table Field Paste System Items Paste
PROJECT Classification_Standa Functions AASHTO_Group_Ind
Table Help
Code Description Data Marker Colour
BH Borehole DG BH Black
CPT Cone penetration test DG CPT Black
DCP Dynamic Cone Penetrometer DG DCP Black
EXP Logged exposure DG TP Black
HA Hand Auger DG BH Black
ICBR In situ CBR DG ISTEST Black
IDEN In situ density test DG ISTEST Black
INST Instrument DG ISTEST Black
IRDX In situ redox test DG ISTEST Black
IRES In situ resistivity DG ISTEST Black
IVAN In situ vane test DG ISTEST Black
OP Observation pit/trench DG TP Black
PM Pressuremeter test hole DG BH Black
S Shaft DG BH Black
SRAL Seismic refraction line 19 Black
TP Test pit DG TP Black
TRAV Linear logging traverse or scanline survey DG TP Black
Row 1 of 17

Figure 7 – DG_COM_HOLE_TYPE Library Table

Sometimes you may need to change the way the data marker is displayed. You can do this, as a one off, in the **OUTPUT** Application group by:

1. Select the **Properties** button to bring up the Site Map Report Properties
2. Select the **Data Representation** Tab
3. Here you can edit data marker, height, colour, turn on and off the ID plotting and if the IDs are opaque (halo that prints around text)

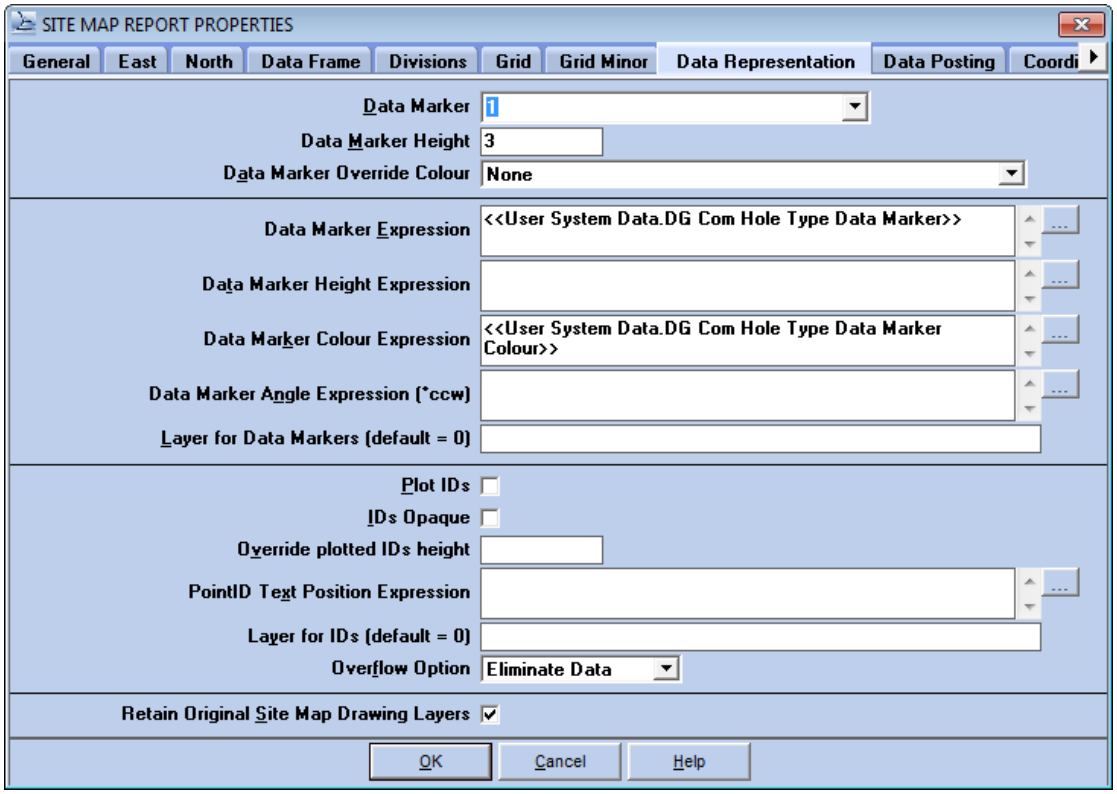


Figure 8 – Site Map Report Data Marker Properties

3.3 User Report Variables

The user report variables can be used to define the details of the title block and the properties of the site map report. A list of the user report variables and an explanation of how they are used is provided below in Table 3.

Table 3 – Site Map User Report Variables

Name	Value	Notes
Title	Site Map	Report title
Drawn		Enter person's initials/name
Date Drawn		Enter date
Checked		Enter person's initials/name
Date Checked		Enter date
Figure Number		Enter text. If left blank, it will default to "Figure 1".
Scale	1 (for 1:1000)	Overrides the scale of the site map by the selected value.
Min E (m)		Overrides the coordinates of the lower left hand

Min N (m)		corner of the site map to the specified coordinates.
Destination or Source	D	Defines if the Destination E/N (primary East and North fields) or Source N/E will be used by the map. Only applies to DGD databases.

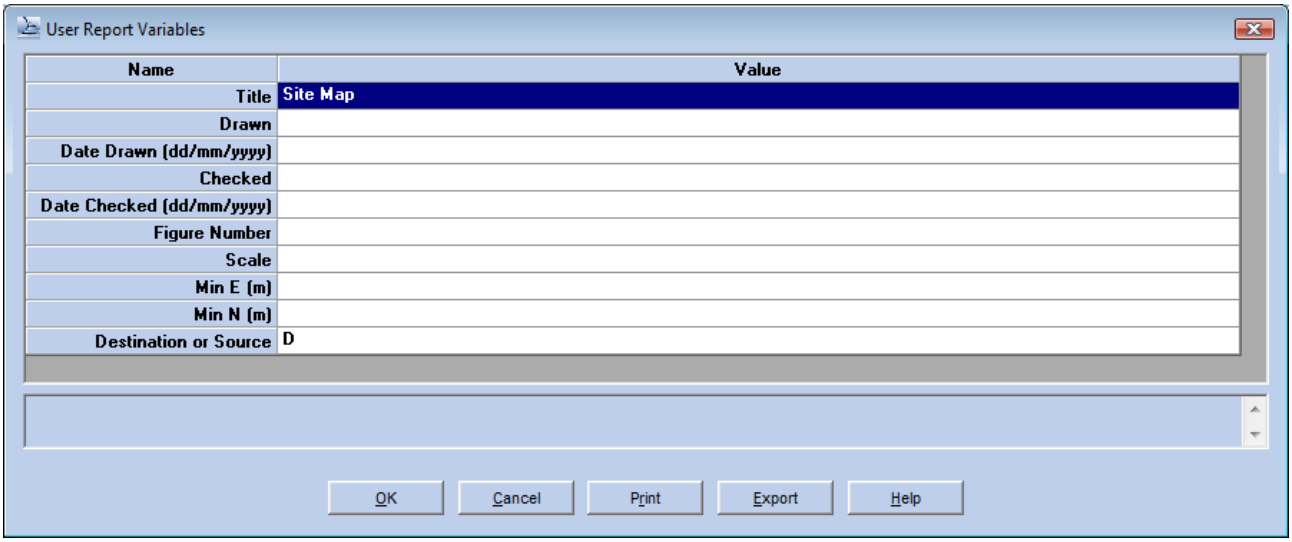


Figure 9 – Site Map Report User Report Variables

4 Reports

4.1 Fence Reports

Table 4 – Fence Reports

Name	Description
FENCE A1L	Fence – A1 paper size – Landscape orientation with a site map
FENCE A1L NO PLAN	Fence – A1 paper size – Landscape orientation without a site map
FENCE A1LE	Fence – A1 paper size width – Landscape orientation with a site map (extended length for a roll printer)
FENCE A1LE NO PLAN	Fence – A1 paper size width – Landscape orientation without a site map (extended length for a roll printer)
FENCE A3L	Fence – A3 paper size – Landscape orientation with a site map
FENCE A3L NO PLAN	Fence – A3 paper size – Landscape orientation without a site map
FENCE A3LE	Fence – A3 paper size width – Landscape orientation with a site map (extended length for a roll printer)
FENCE A3LE NO PLAN	Fence – A3 paper size width – Landscape orientation without a site map (extended length for a roll printer)
FENCE A4L	Fence – A4 paper size – Landscape orientation with a site map
FENCE A4L NO PLAN	Fence – A4 paper size – Landscape orientation without a site map
FENCE A4P	Fence – A4 paper size – Portrait orientation with a site map
FENCE A4P NO PLAN	Fence – A4 paper size – Portrait orientation without a site map

4.2 Site Map Reports

Table 5 – Site Map Reports

Name	Description
MAP A1L	Site Map – A1 paper size – Landscape orientation
MAP A1P	Site Map – A1 paper size – Portrait orientation
MAP A3L	Site Map – A3 paper size – Landscape orientation
MAP A3P	Site Ma p– A3 paper size – Portrait orientation
MAP A4L	Site Map – A4 paper size – Landscape orientation
MAP A4P	Site Map – A4 paper size – Portrait orientation